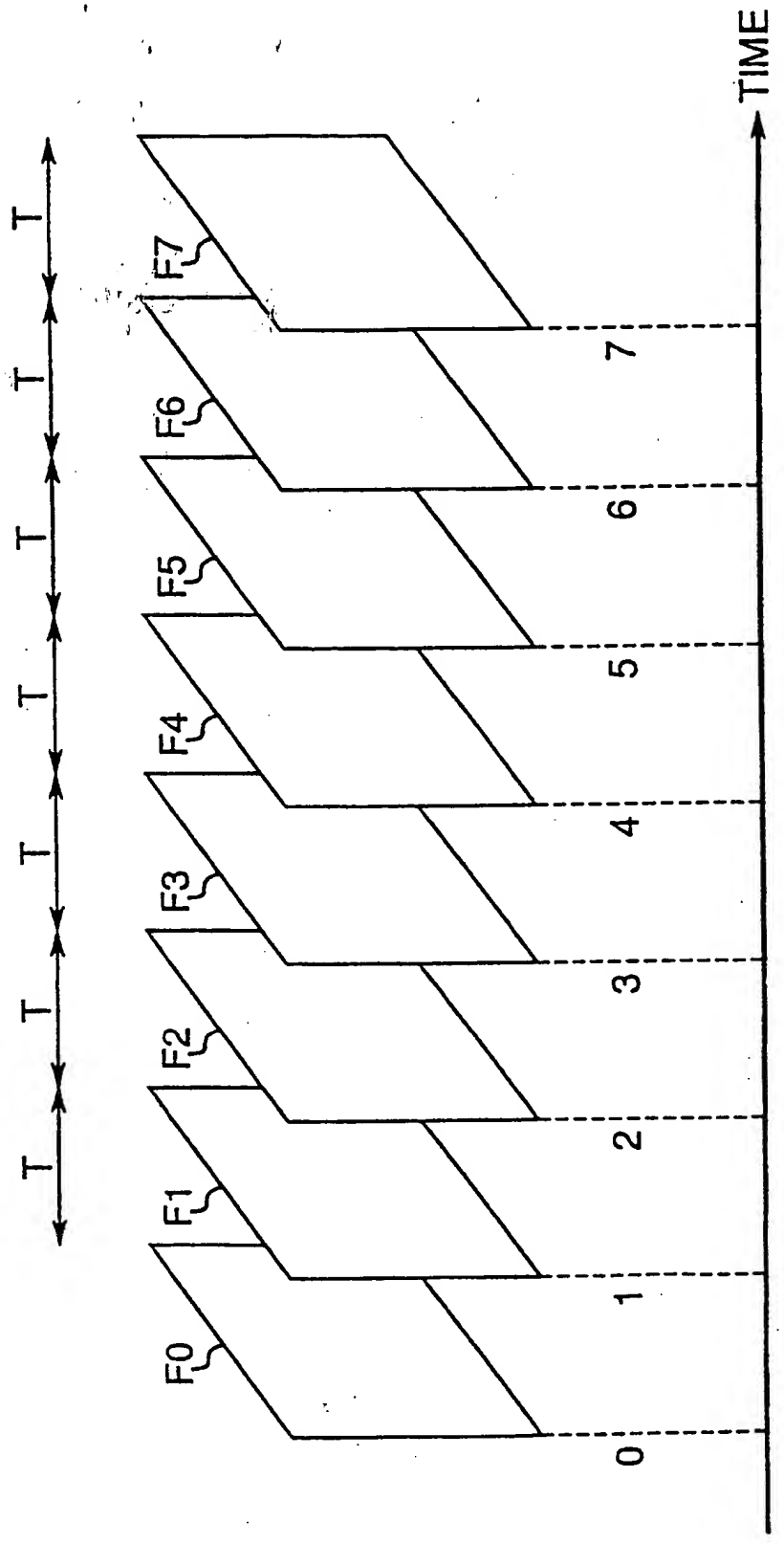


Fig. 1

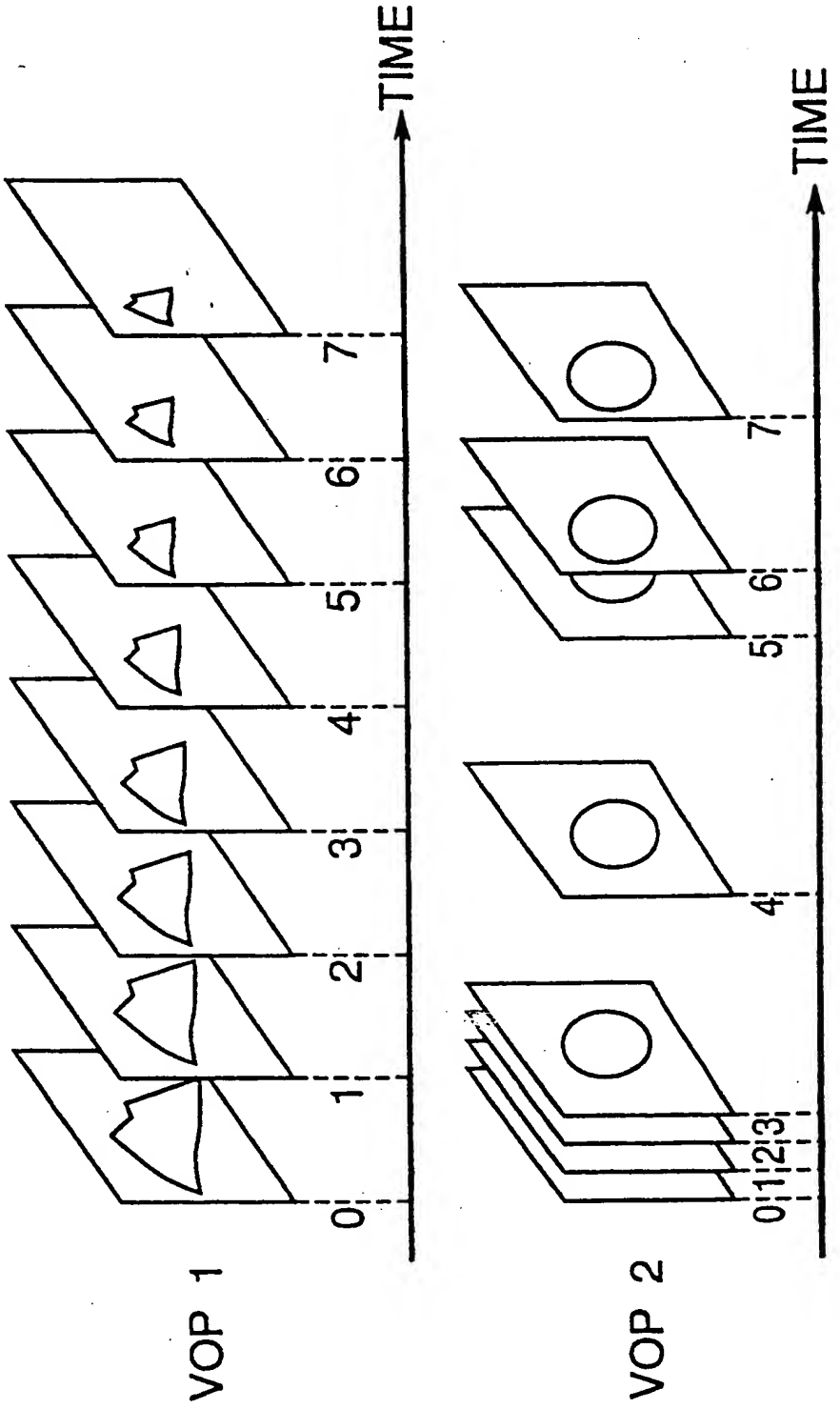


Fig.2

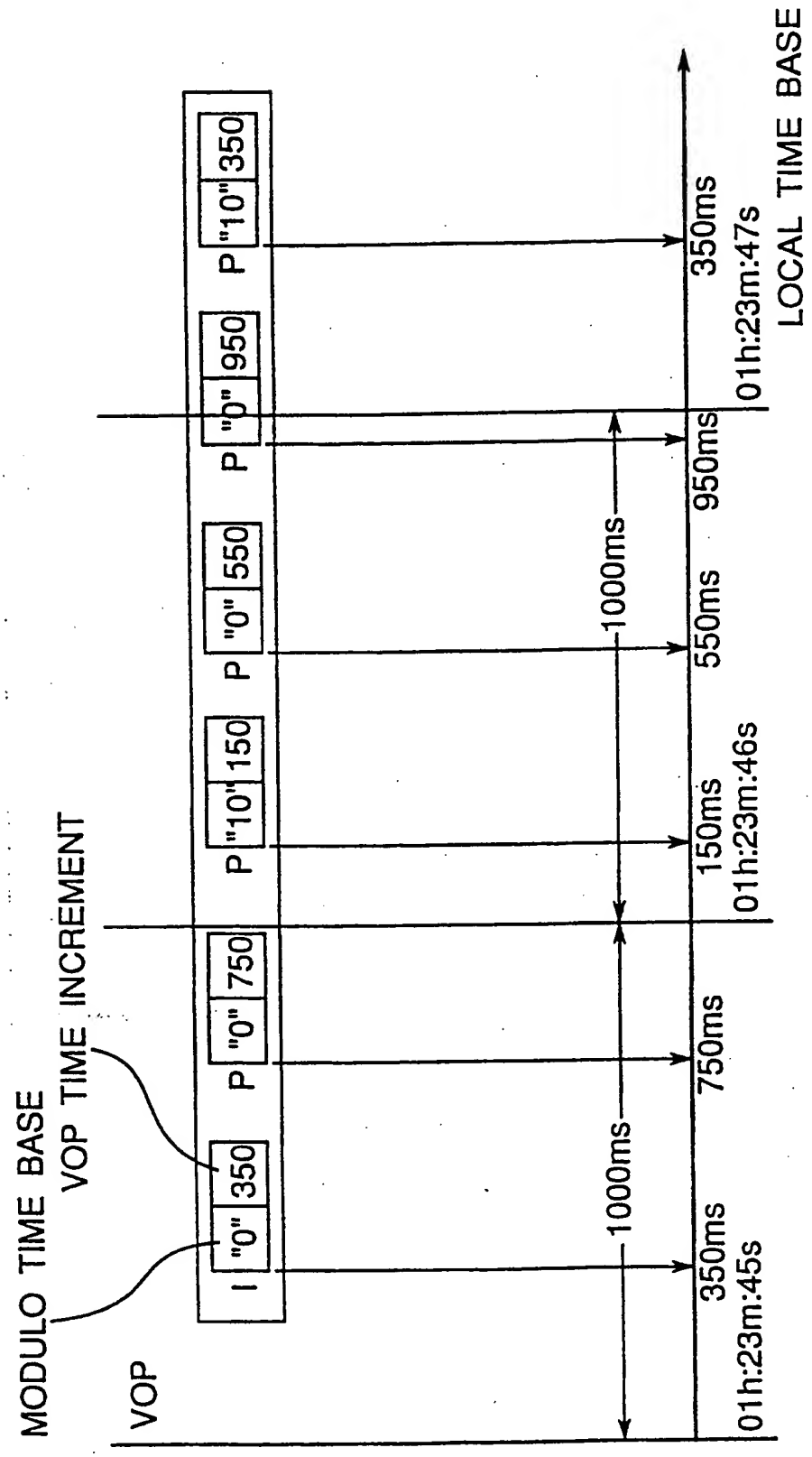

VOP
MODULO TIME BASE
VOP TIME INCREMENT
I "0" 350
P "0" 750
P "10" 150
P "0" 550
P "0" 950
P "10" 350
1000ms
1000ms
350ms
01h:23m:45s
750ms
150ms
01h:23m:46s
550ms
950ms
01h:23m:47s
350ms
LOCAL TIME BASE

Fig.3A

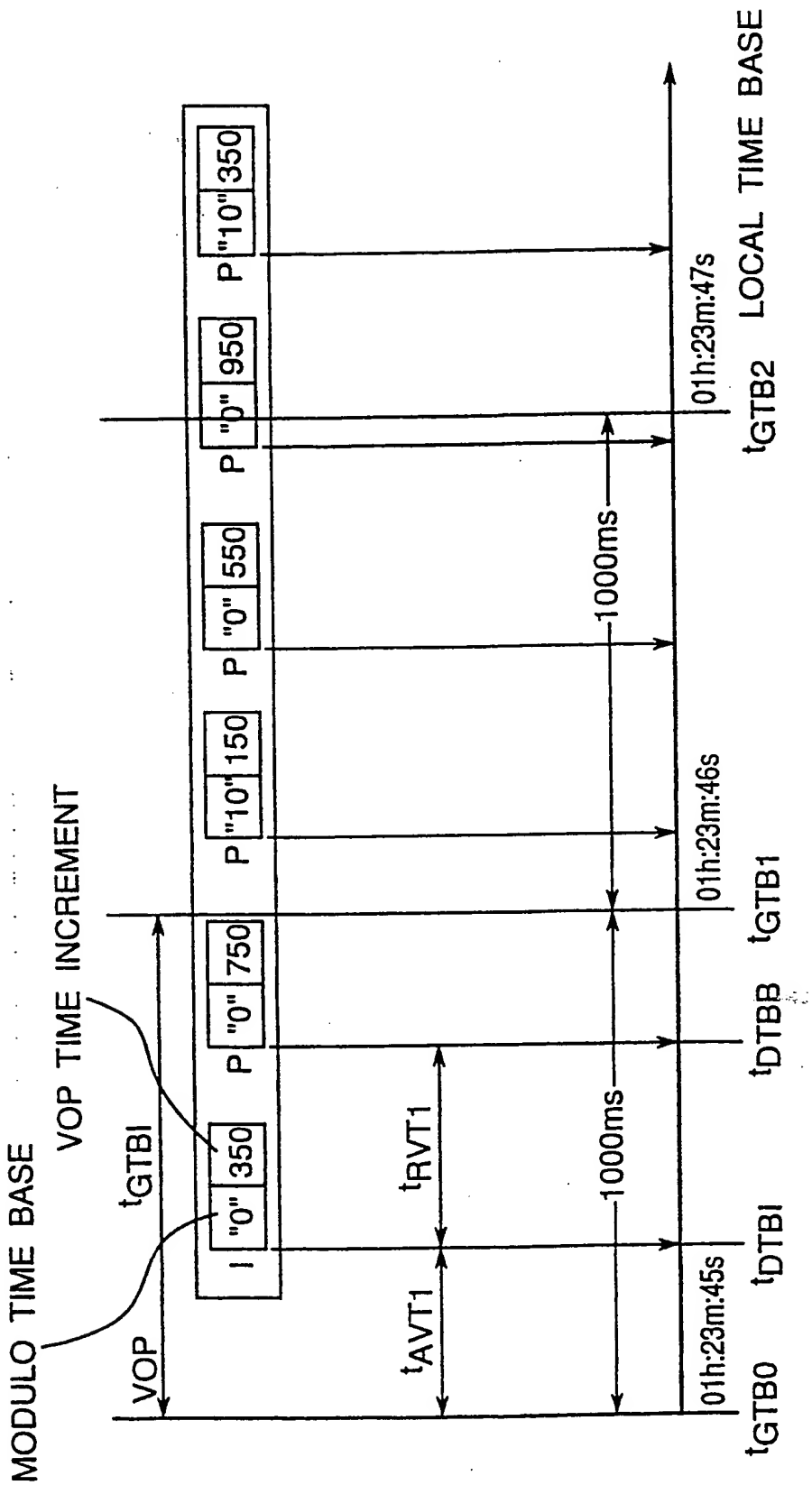

MODULO TIME BASE
VOP TIME INCREMENT
VOP
tGTBI
I "0" 350
P "0" 750
P "10" 150
P "0" 550
P "0" 950
P "10" 350
tRVT1
tAVT1
1000ms
1000ms
tGTB0
tDTBI
01h:23m:45s
tDTBB
tGTB1
01h:23m:46s
tGTB2
LOCAL TIME BASE
01h:23m:47s

Fig.3B

DOCKET: THSE260

Fig.4A

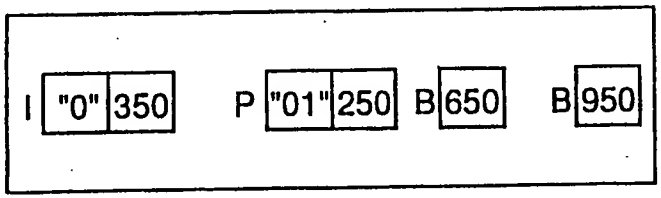


Fig.4B

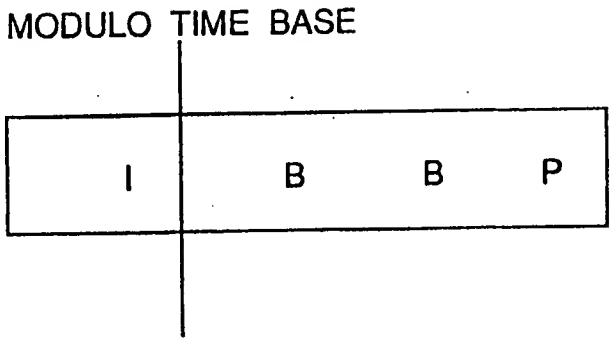


Fig.4C

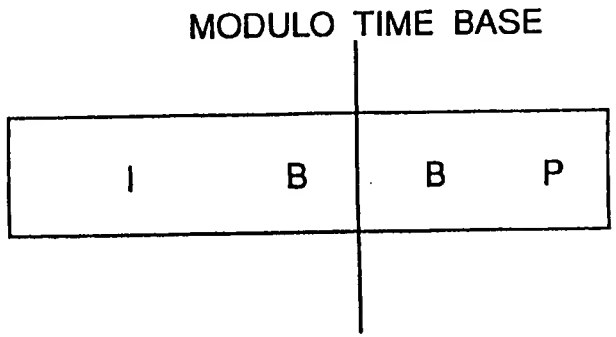
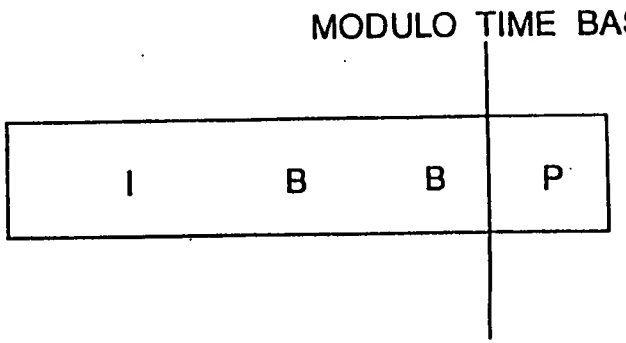


Fig.4D



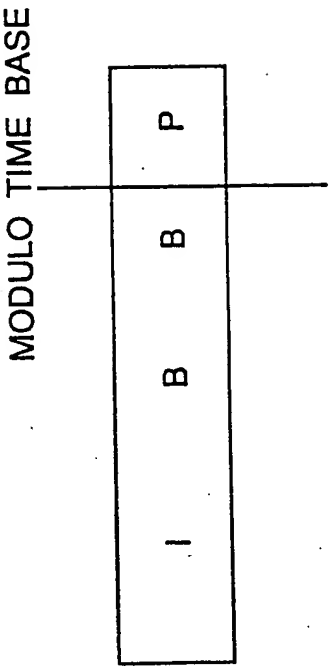


Fig.5B

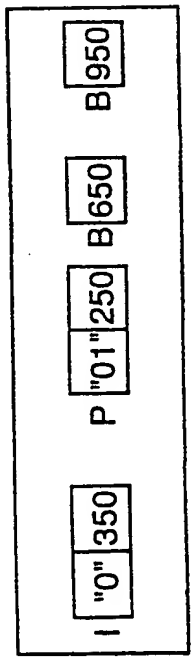


Fig.5A

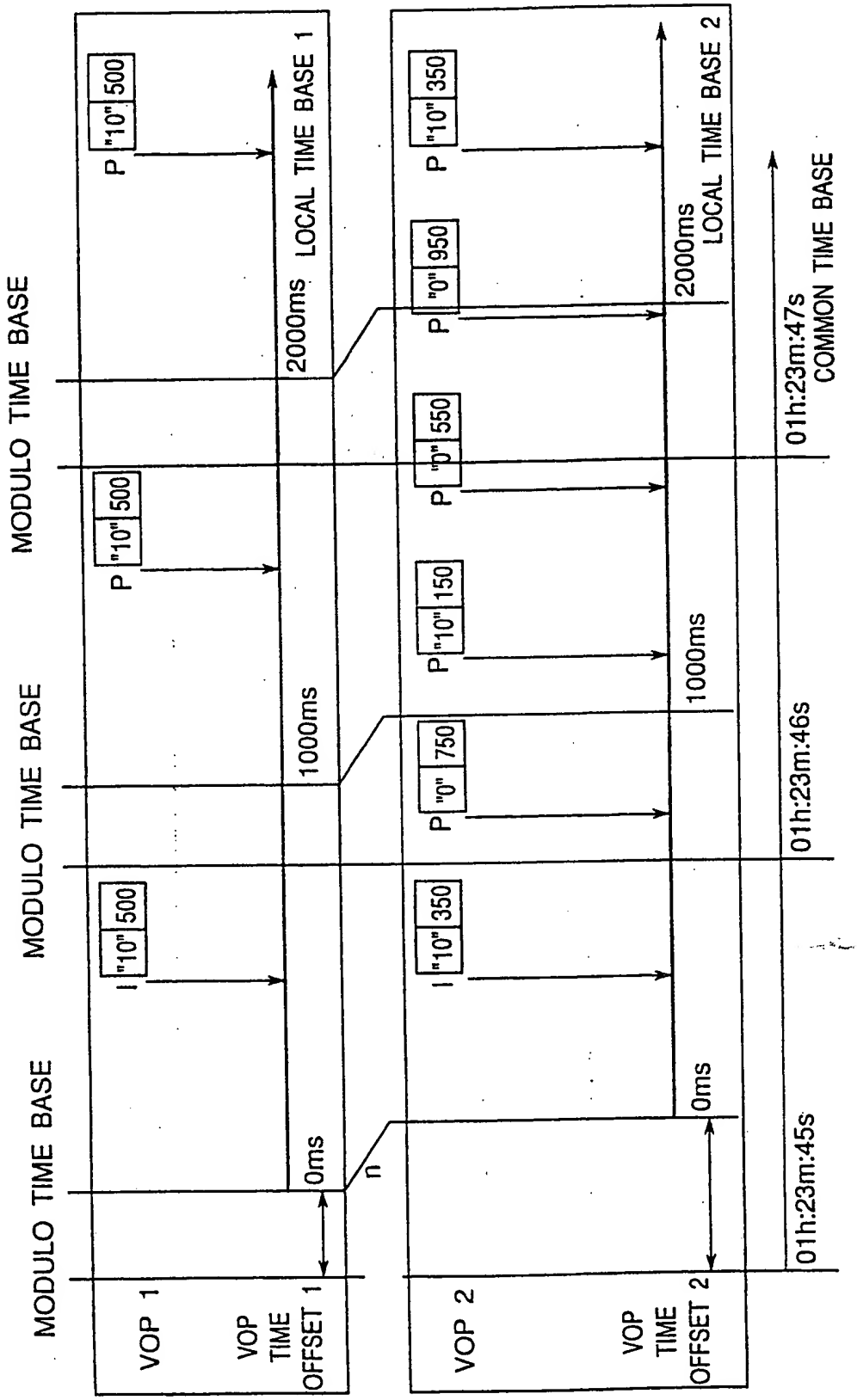

MODULO TIME BASE
MODULO TIME BASE
MODULO TIME BASE
I "10" 500
P "10" 500
P "10" 500
VOP 1
VOP TIME OFFSET 1
0ms
1000ms
2000ms LOCAL TIME BASE 1
n
I "10" 350
P "0" 750
P "10" 150
P "0" 550
P "0" 950
P "10" 350
VOP 2
VOP TIME OFFSET 2
0ms
1000ms
2000ms LOCAL TIME BASE 2
01h:23m:45s
01h:23m:46s
01h:23m:47s
COMMON TIME BASE

Fig. 6

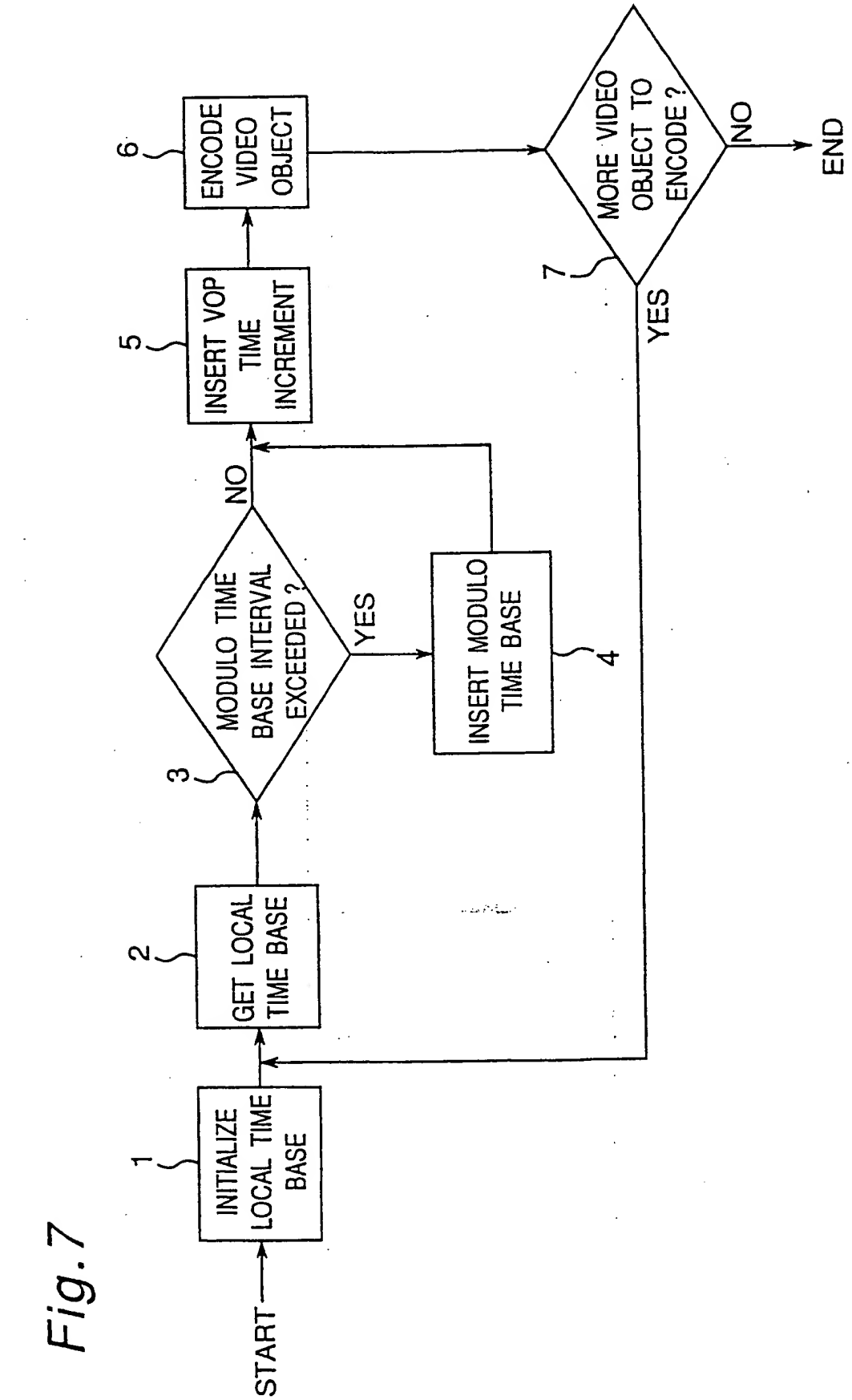

START
INITIALIZE LOCAL TIME BASE
1
GET LOCAL TIME BASE
2
MODULO TIME BASE INTERVAL EXCEEDED ?
3
YES
INSERT MODULO TIME BASE
4
NO
INSERT VOP TIME INCREMENT
5
ENCODE VIDEO OBJECT
6
MORE VIDEO OBJECT TO ENCODE ?
7
NO
END
YES

Fig. 7

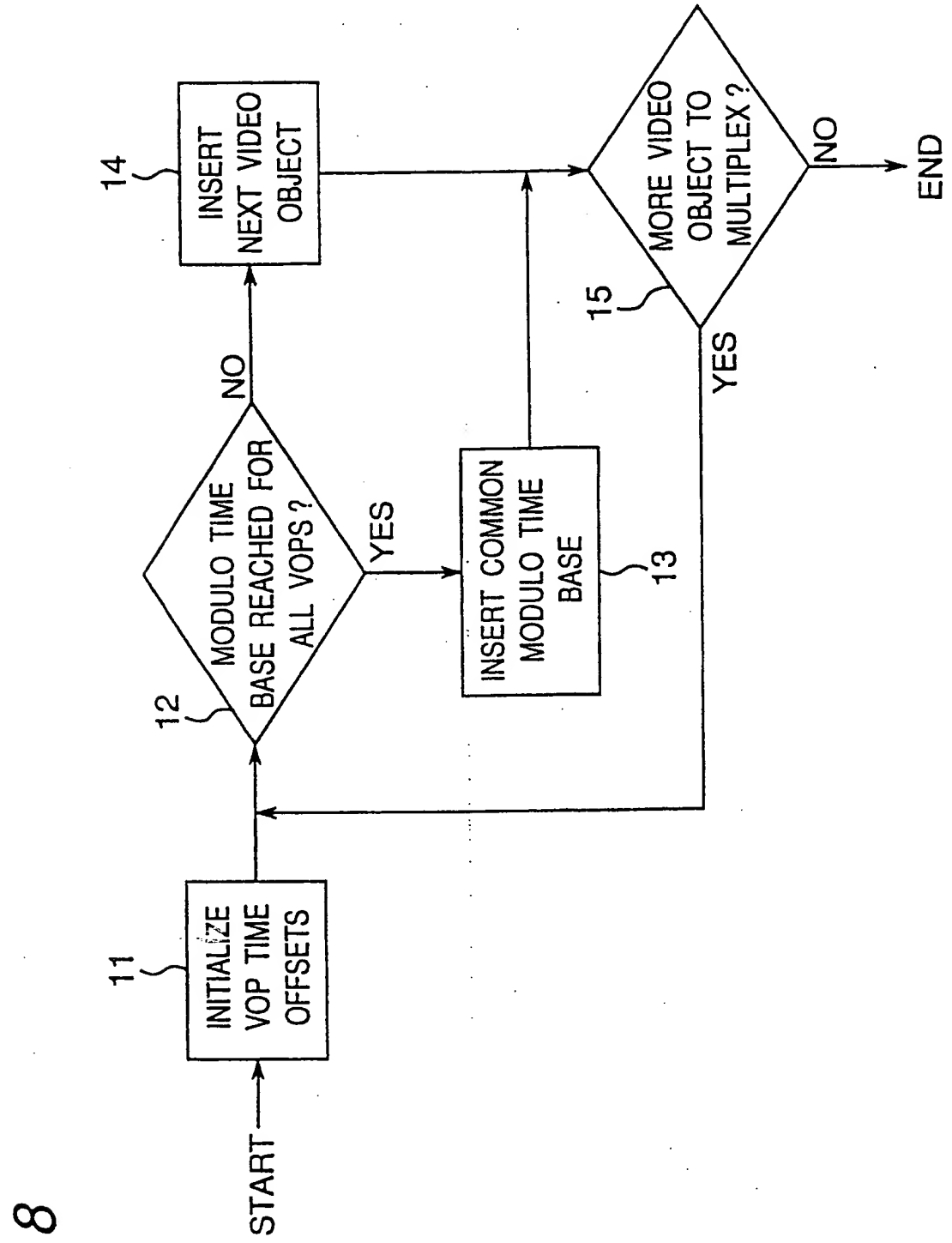

START
INITIALIZE VOP TIME OFFSETS
11
MODULO TIME BASE REACHED FOR ALL VOPS?
12
YES
NO
INSERT COMMON MODULO TIME BASE
13
INSERT NEXT VIDEO OBJECT
14
MORE VIDEO OBJECT TO MULTIPLEX?
15
YES
NO
END

Fig. 8

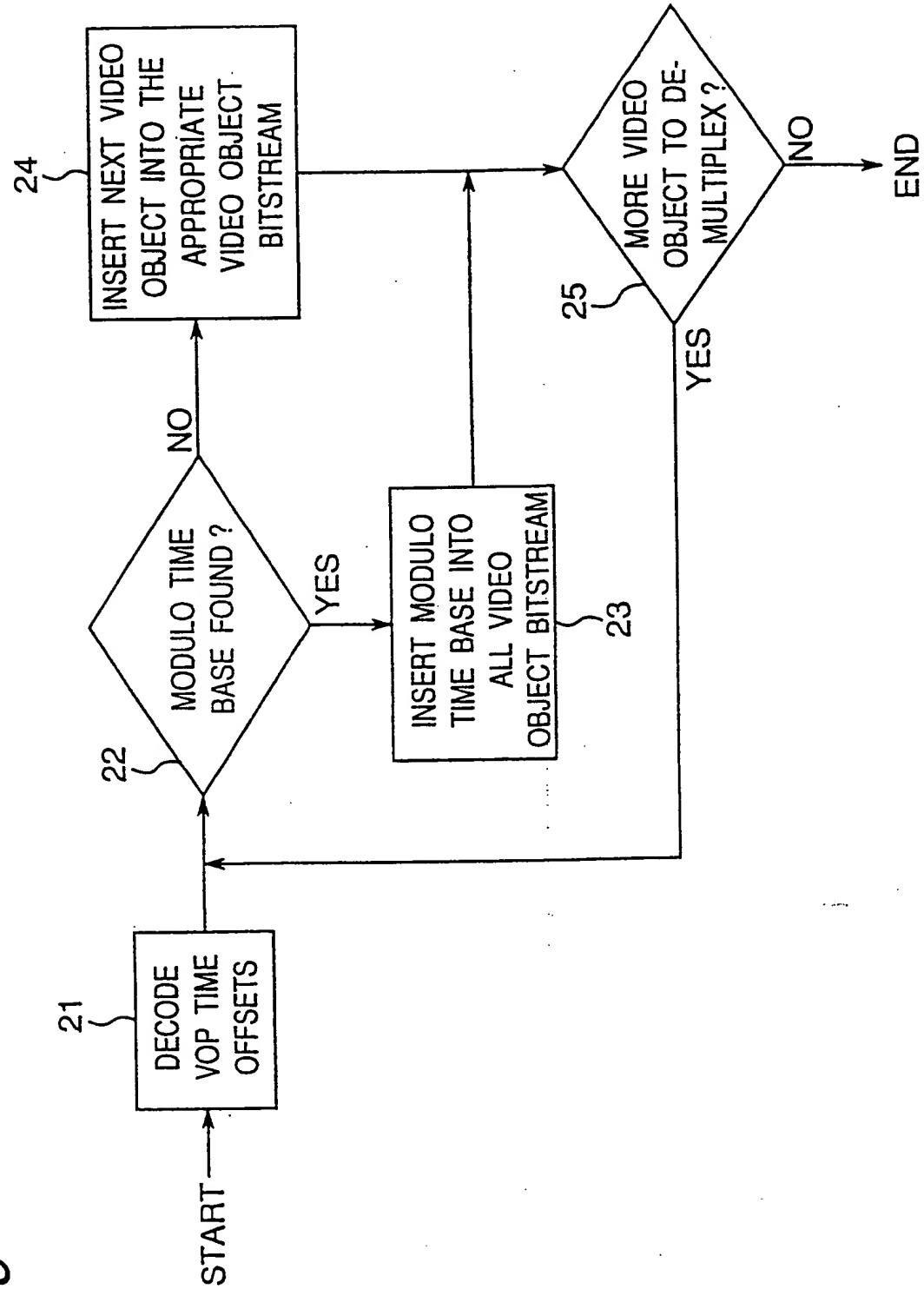

START
DECODE VOP TIME OFFSETS
21
MODULO TIME BASE FOUND ?
22
YES
NO
INSERT MODULO TIME BASE INTO ALL VIDEO OBJECT BITSTREAM
23
INSERT NEXT VIDEO OBJECT INTO THE APPROPRIATE VIDEO OBJECT BITSTREAM
24
MORE VIDEO OBJECT TO DE-MULTIPLEX ?
25
YES
NO
END

Fig. 9

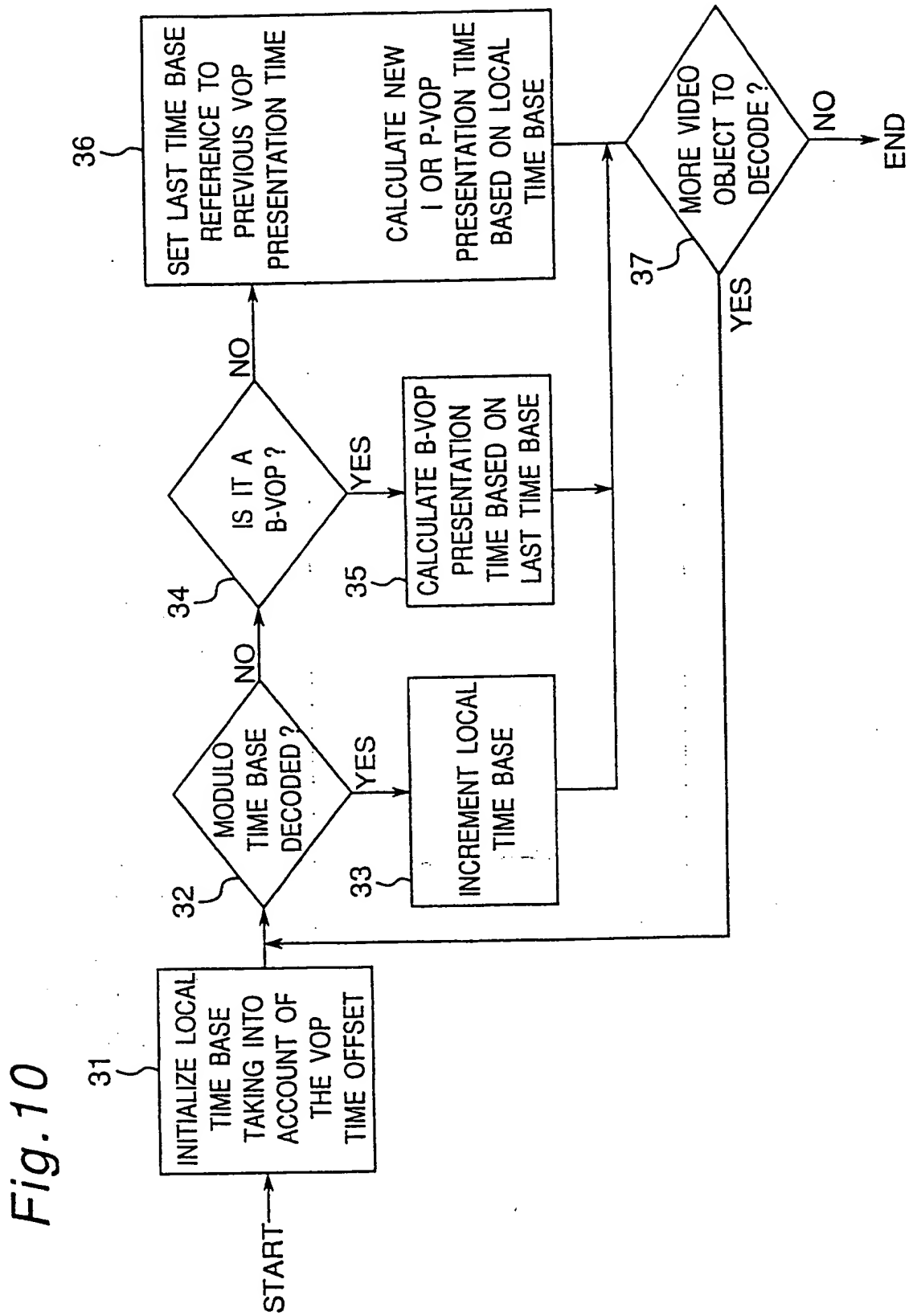

START
INITIALIZE LOCAL TIME BASE TAKING INTO ACCOUNT OF THE VOP TIME OFFSET
31
MODULO TIME BASE DECODED ?
32
YES
INCREMENT LOCAL TIME BASE
33
NO
IS IT A B-VOP ?
34
YES
CALCULATE B-VOP PRESENTATION TIME BASED ON LAST TIME BASE
35
NO
SET LAST TIME BASE REFERENCE TO PREVIOUS VOP PRESENTATION TIME
CALCULATE NEW I OR P-VOP PRESENTATION TIME BASED ON LOCAL TIME BASE
36
MORE VIDEO OBJECT TO DECODE ?
37
YES
NO
END

Fig. 10

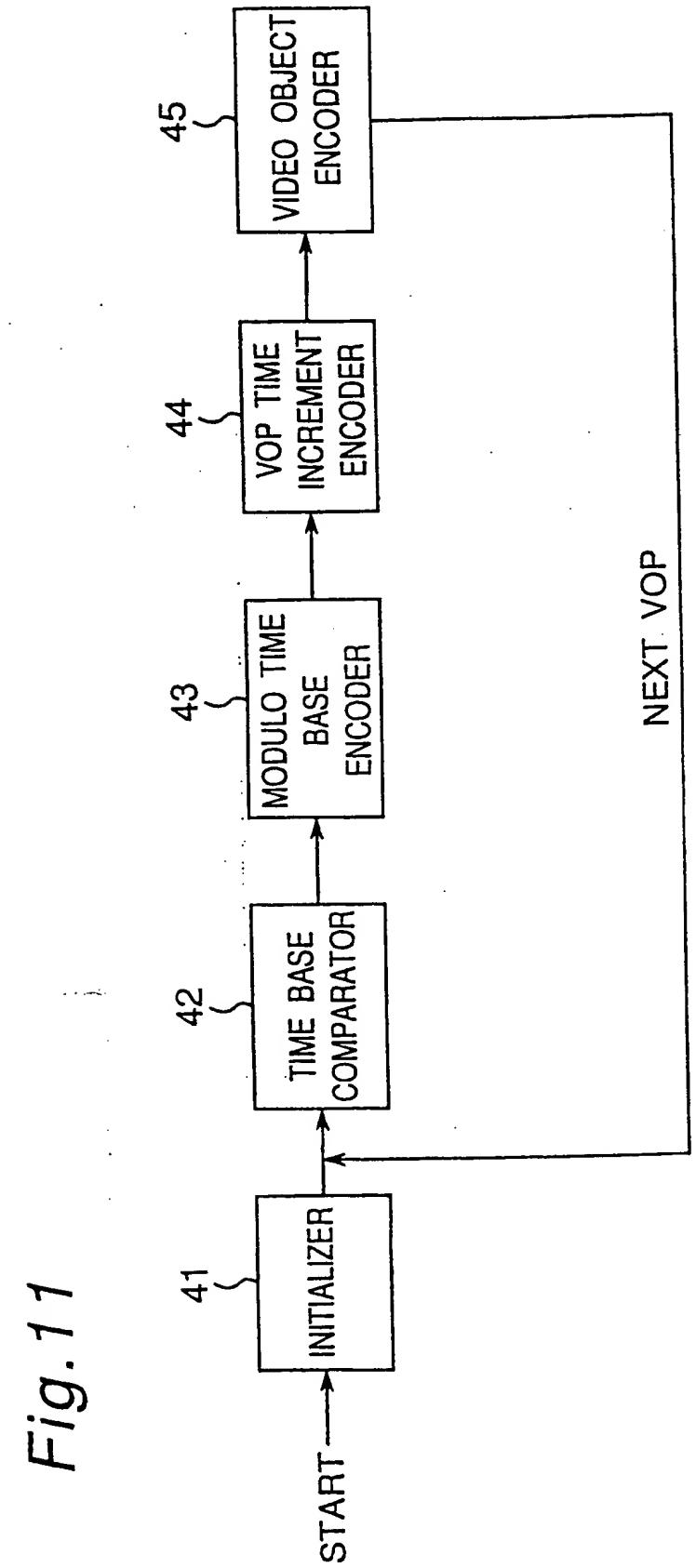

START
41
INITIALIZER
42
TIME BASE COMPARATOR
43
MODULO TIME BASE ENCODER
44
VOP TIME INCREMENT ENCODER
45
VIDEO OBJECT ENCODER
NEXT VOP

Fig. 11

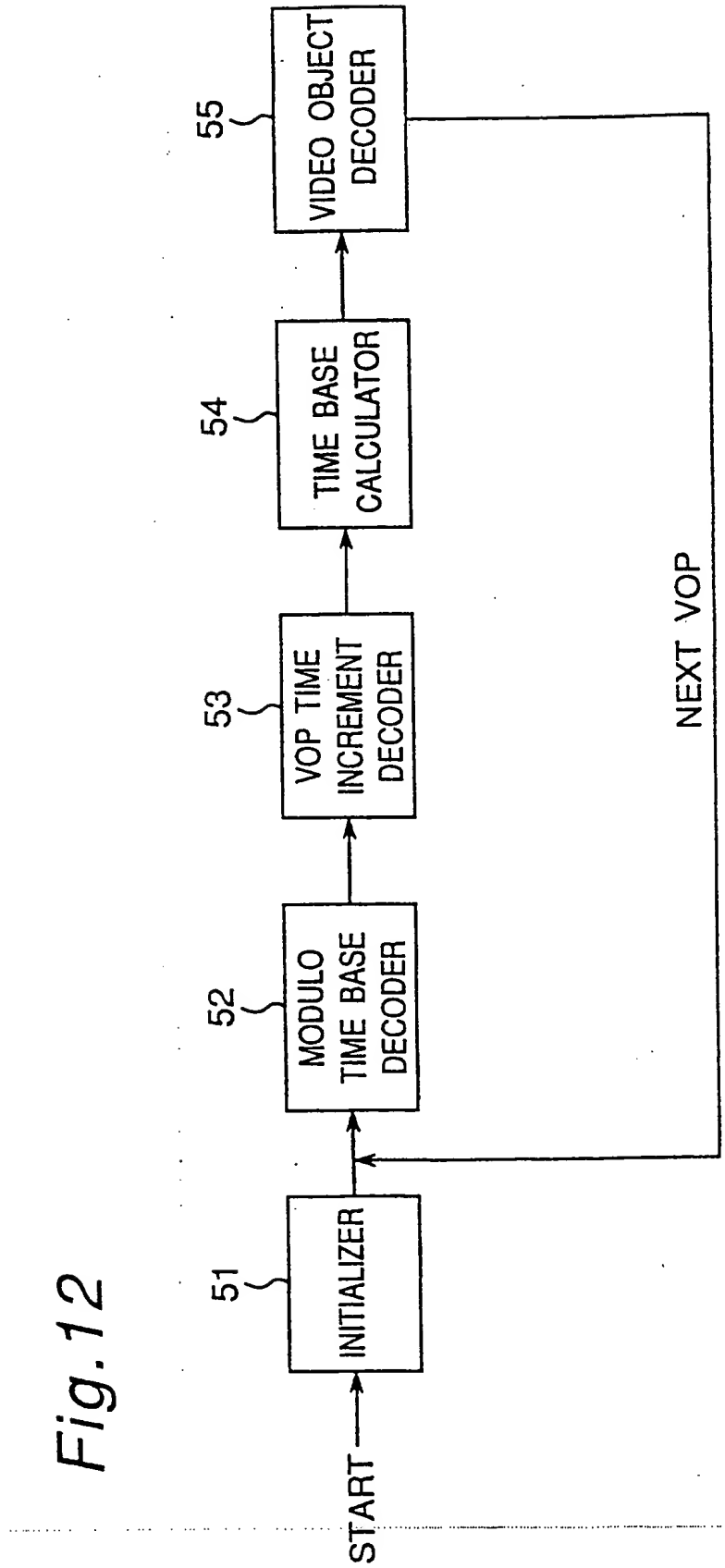

START
INITIALIZER
51
MODULO TIME BASE DECODER
52
VOP TIME INCREMENT DECODER
53
TIME BASE CALCULATOR
54
VIDEO OBJECT DECODER
55
NEXT VOP

Fig. 12

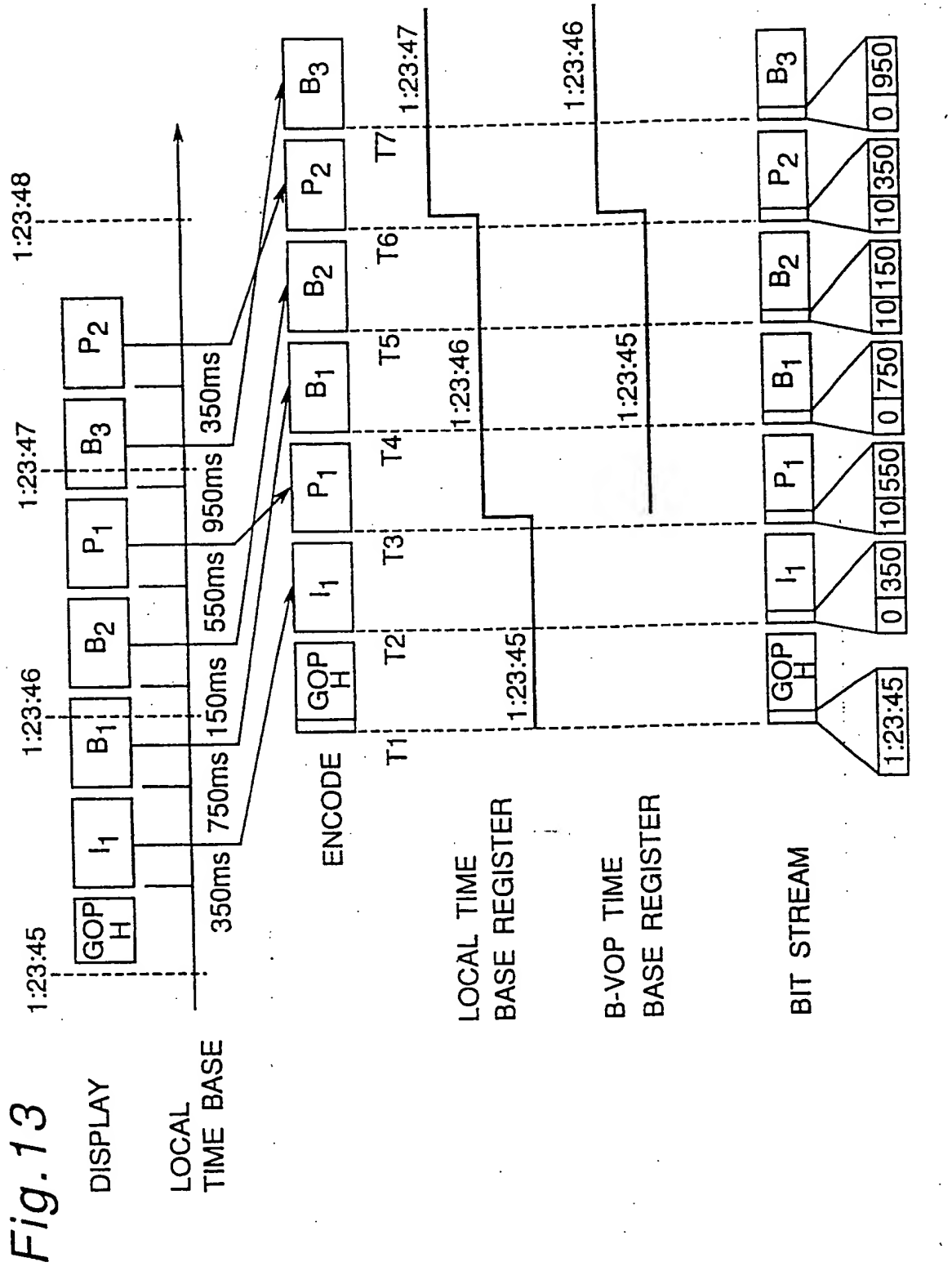

DISPLAY
LOCAL TIME BASE
1:23:45
1:23:46
1:23:47
1:23:48
GOP H
I1
B1
B2
P1
B3
P2
350ms
750ms
150ms
550ms
950ms
350ms
ENCODE
T1
T2
T3
T4
T5
T6
T7
1:23:45
1:23:46
1:23:47
LOCAL TIME BASE REGISTER
1:23:45
1:23:46
B-VOP TIME BASE REGISTER
BIT STREAM
0 350
0 750
0 150
0 350
0 950
10 550
10 150
10 350
1:23:45

Fig. 13